Introduction Slide - 1

My name is Brad Preheim. I am the manager of the VBWDD. We are one of the 7 water development districts in the state and serve the lower two counties (turner and clay) of the vermillion river watershed.

Slide - 2 - VBWDD Contact information

Slide 3 - Map of current Water Development Districts

Slide 4

Like other water development districts, our goal is to provide technical, organizational and financial assistance to prospective and existing projects that promote conservation, development and proper management of district water resources.

Slide 5

A list of all the types of projects we support. Some more than others but this is a comprehensive list.

Slide 6 - TLC Water Project District Contact Info.

Just to clarify since I have testified at 2 of your previous 3 meetings I would also like to mention that I am also the manager of the Turner Lincoln Clay Water Project district. This water project district represents the flood plain from Davis to Vermillion on the lower vermillion. That organizations main objective is flood control.

Slide 7 TLC Statement of Purpose

The Turner Lincoln Clay Water Project District serves the floodplain of the lower Vermillion Basin. That district taxes only the landowners within the flood plain and its sole purpose is to protect that land with its limited resources by funding projects to mitigate excess water.

Slide 8 TLC Boundary Map

Much like the VBWDD, TLC serves the bottom portion of a watershed.

Slide 9 Where do we go from here. Transition from information gathering to problem solving.

Slide 10 - What would we like to see from the task force ?

I know a lot of the discussion over the past year or so in regards to this Task Force has been focused on drainage or more specifically tiling issues.

I would like to clarify that The Directors of my districts are mostly rural residents and a majority of their occupations consist of farming. They are in no way "anti-farming" or "anti-tiling". They just feel that the system is broken somewhat and with many counties abandoning drainage ordinances, it is time to

fix the problem and at the same time re-evaluate how we manage water related issues. And it is my Board's belief that a watershed wide management system is a good potential solution.

Slide 11 Using a model created by HB1001 – Potential Map

This is picture of the boundaries of what could be the Vermillion Basin Watershed Management District (VBWMD). Each of these WMD's would be unique and would have to have its own Watershed Management Plan to serve its issues and problems.

Slide 12

These are the common things we feel are needed within a WMD. The district has to be able to have the authority to make decisions, the expertise to make the correct decisions, the financing to do these things and the capability to enforce the decisions.

Expertise - access to hydrologists, attorneys etc

Slide 13

Here is a suggestion for 8 different things that would be addressed in the VBWMD's watershed management plan.

There are likely a few more things that could be added to this

There are some that maybe aren't as important or aren't feasible

I am using these for discussion purposes to show our ideas of how different things can be implemented using watershed wide management.

I will discuss each of these briefly.

Slide 14 - Guidelines for Drainage permits

We realize it is the Task Force's job to recommend whatever drainage rules and laws they feel need to be created, changed or eliminated. And it is the Legislature's job to create the laws once that has happened. And for this discussion, we are not suggesting what those laws or changes are.

We are simply wanting to emphasize that whatever changes are made (if any) that they be implemented and enforced at a watershed level versus a county level. The water doesn't care about political boundaries and frankly, each counties interest is to get it to the next county. We are hoping for a better system to manage and control water.

Once the rules are decided by the Legislature and a Watershed Management Plan is created based on those rules, the individual permits or applications can still be decided on a local level as long as they abide by the overal Plan. (Local level could be counties, sub committees or mini watersheds etc)

With a WMD, the decision makers would have access to expertise and information that would allow them to make the proper decisions. This is something they don't have now and the main reason they all want out of the process.

(As with much of this presentation, we are touching on the basics and will leave it at that for now. However, going forward if the Task Force would like more specific ideas or would like us to be a part of planning some of these things, we would be more than willing to get into more details or help with the process in any way)

Slide 15-16 – Levee Repair/ Bank stabilization 2 dike pictures

One of the things required on the lower vermillion in many areas are protective dikes or levees. In many areas, these dikes are created and maintained by Diking Associations. A Diking Association is a local group of landowners within the same bluff that assess themselves and work together to maintain the dike system to protect the land in times of high water.

Currently, there are two problems within this system. The first is the fact that with more and more water coming downstream all the time, the dikes have to get bigger and bigger and they are being destroyed more and more with larger and longer floods. The excess water makes the costs higher and higher for local landowners. With the idea that everyone contributes to the water system, a WMD could have some resources to ensure that the entire burden doesn't continue to fall on just a few landowners.

The second problem is non-compliance. If just ONE landowner doesn't participate in the diking system for that area, everyone in that association can flood. In other words, if a dike system that has been in place for decades becomes compromised in an area that a landowner won't or can no longer afford to fix it, dozens of landowners can lose thousands of acres of cropland.

Ideally, a Watershed Management Plan within the District would give the District the authority to address situations like this.

To address water quality and erosion issues.

Bank stabilization that could be part of the overall plan. Give example.

Much like dike associations, there can be guidelines and plans for bank stabilization.

Slide 17-18 River Debris problems Pic of beaver dam.. pic of tree pile

I have a couple pictures here showing how debris can cause problems within the river. The tree pile causes the water to leave the channel, take out the dike and head across fields and create damage to crops and erosion. Without the ability to access the debris or enforce anything the problem will usually continue to get worse.

Once again a Watershed Management plan within a WMD could give some authority to fix a problem like this and not only save the land affected by this but also keep the water moving for everyone.

Currently nothing can be done about something like this if the owner of the land won't either fix the problem or allow access.

In regards to this problem, the TLC Water Project District has just applied for an Environmental Quality Incentive Program (EQIP) grant. This grant would be used to clean out debris piles in the river to help alleviate this problem. At this time, the program is voluntary to landowners and no one would be forced to clean out the debris or allow access to the land to let someone else do it. Local scale only, WMD would allow the entire river system.

Slide 19-20 – Lake Management (Lake Thompson Pic)

I have heard testimony at prior meetings about the high water levels around Lakes. In particular around Lake Thompson. The people are testifying about the damage and problems caused by the high water.

Currently there are issues with the Water Management Board and the setting of the outlet elevation on the lake. Several county states attorneys are getting involved and it has become an expensive and controversial subject.

A Watershed Management Plan could also include ideas for Lake Management. For example, last summer when we had record drought, it would have been a perfect time to get some water off of Lake Thompson. This would have lessened their problems, the river downstream could certainly have used the water and it would also give the lake more capacity for future rain events.

A WMD that can set rules and regulations that can be agreed upon by everyone would be very beneficial in a situation like I just described.

Slide 21-23 – Construction/replacement of culverts/bridges/roads

Things like installing or replacing a culvert can cause disputes at even the local or township level. Not to mention the problems it can cause at the county level or between neighboring counties. If one county resizes culverts at the lower level of the county, the neighboring county to the south might not have the immediate capability to deal with the changes in flow.

Having a guideline or system in place to make sure things like this are dealt with properly can be something a WMD could implement. A watershed wide plan to coordinate the water from the top to the bottom of the river system without having to worry about political (or county) boundaries and policies would be an ideal way to move the water through the system the most effectively and with the least amount of damage.

Bridge Example

Bridge A on the left is a bridge that had the river rechanneled and narrowed when it was put in. In addition the grade of the road was raised.

Bridge B is a nice wide bridge that sits nearly 100 feet above the channel.

These bridges are only about 3 miles apart.

These pictures are an example of what could be considered a hindrance to the river system by an inadequate set of bridges.

Slide 24 – Ditch associations

A ditch association is much like a dike association. A group of landowners in a similar waterway create a mutually agreed upon ditching system to move water through a created ditch in a responsible manner to move the water along. The ditch association members assess themselves to pay for maintenance of the system.

We have some very successful ones in Clay County that work very well.

Problems - They go defunct or aren't maintained.

1) People die or sell land

2) Out of state landowners

3) No one is in charge

Through a Water Management District, more of these types of entities could be created and maintained. If they are done correctly, they are a valuable way to move water to help some landowners without hurting others.

Slide 25 – Municipalities

Can contribute to the problems and need to be addressed within a watershed management plan.

26-29 – Programs and Projects to control/regulate excess water

As with most places, in our local area the landowners and water districts assess themselves and do everything they can to protect the land and infrastructure from the ever increasing floods. Things like dike repairs, river debris cleanout programs and small embankment dams are created to help stop or at least reduce the damage caused from the increased flows.

Local Small Dam Construction Pictures

You are looking at pictures of a small embankment pond created by a local landowner and his neighbor. Excess water from open ditching began to flood areas of his land that hadn't previously flooded. He constructed this dam to control the excess water.

Pics of construction and completion

As you can see in this last picture, he has a nice crop below the structure and despite heavy rains this spring, the land didn't get a drop of excess water. The structure directly protects 240 acres and indirectly protects another 1200. He is adding other similar structures. First one $50,000. Had a little help but he and his neighbor are responsible for most of the costs.

2 points in regards to projects and programs like I have mentioned. Dam Construction, TLC EQIP

1) These types of projects, no matter how small they are, they do work if done properly and they all add up. And if you get enough of them, we can save a lot of damage to roads, bridges, crop land and local economies.

2) Currently the entire watershed contributes to the river system, yet many times, only the local guy with the problem is there to foot the bill to fix it. From the flooded house on Lake Thompson to the flooded farmer near Vermillion, the burden continues to rise on some people.

An entity such as a WMD would have a common goal, the resources and the expertise to develop and maintain programs and systems for these types of projects at a watershed level rather than just at a local level that would go a long way in reducing or maybe even preventing floods. And eventually, once the water is controlled, all the land from the top of the basin to the bottom basin (up ground or bottom ground) can be utilized to its full potential.

Slide 29-30 - Summary

Many people in many watersheds have been fighting problems like these for decades and they only seem to be getting worse. Those people do as much as they can with the resources they have to protect themselves and their homes and land. On top of that, the infrastructure ruined by flooding and water quality problems additionally cost taxpayers even more money on top of fixing their own problems.

A lot of people feel this Task Force is one of the last hopes we have anytime soon to begin to fix the problems. Funding and Red Tape will only continue to be more difficult as time goes on and changes in both nature and man-made development will continue to make things more difficult.

Currently our river system is at and over capacity and these are just some ideas we have formulated that hopefully are beneficial to you in your discussions on trying to solve a very complicated issue. As previously mentioned, if you'd like us to try to get into more specifics on any of these issues or can help in any way, we are always willing. And as I mentioned at one of your prior meetings, we'd love to host one of your next meetings down in our area in the southeast part of the state. We'd love to expound on these ideas as well as show you in person some of the problems we have and the ideas we have to improve them.